Texas Commission on Environmental Quality
Nonpoint Source Program

Lavon Lake Watershed Protection Plan Implementation

River Basin: Trinity River
Water Body: Lavon Lake Watershed (Segments 0821, 0821A, 0821B, 0821C, 0821D)
Location: Wiley and McKinney

Background

Lavon Lake is the primary source of water for the North Texas Municipal Water District (NTMWD) which serves 90 communities and 1.6 million residents. While Lake Lavon has not had any water quality concerns since 2016, several of its tributaries do. Wilson Creek and the East Fork Trinity River, two of the larger tributaries, have not met state water quality standards for bacteria since 2010, when they were first assessed for the Texas Integrated Report. Sister Grove Creek has concerns for elevated bacteria and low dissolved oxygen, and Pilot Creek has a concern for elevated bacteria.

In 2016 NTMWD, Lavon Lake Watershed Partnership and stakeholders developed the Lavon Lake Watershed Protection Plan (WPP) to address these concerns. The U.S. Environmental Protection Agency accepted the Lavon Lake WPP in December 2017. Although most of the land in the watershed is rural and agricultural, the WPP identified urban runoff as the major source of bacteria pollution.

Project Descriptions

NTMWD will facilitate implementation of urban stormwater management measures described in the Lavon Lake WPP focusing on low impact development (LID), which incorporates stormwater controls into new and existing development with the goal of reducing stormwater volume and pollutants entering the watershed. NTMWD aims to stimulate and support widespread use of LID in the watershed. They will host LID workshops and tours, promote LID-friendly development review practices, and provide watershed-specific LID technical resources. NTMWD will also encourage the adoption of local ordinances and design criteria that promote LID.

NTMWD will install a treatment train of LID best management practices (BMPs) at their Wylie headquarters and individual LID BMPs at three locations in McKinney. Pollutant load reductions from each installation will be calculated using rainfall data combined with pollutant concentration and BMP effectiveness data from prior TCEQ projects and published literature.

A series of workshops and tours of green infrastructure practices will educate the public, municipal officials, employees, landowners, and developers about stormwater control options. The content of these workshops will be tailored to the target audience.

For More Information

Project Website
www.ntmwd.com/watershed-planning/

TCEQ NPS Program
nps@tceq.texas.gov

NTMWD Project Manager
David Cowan
512.626.4416; dcowan@ntmwd.com